

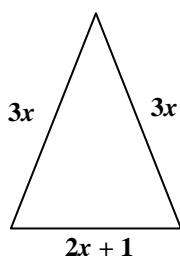
Perimeter, Area, Volume

Long-Term Memory Review – Grade 8

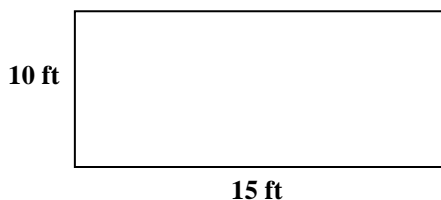
Review 1

1. The formula for the perimeter of a rectangle is $P = \underline{\hspace{2cm}}$.
2. The formula for the area of a rectangle is $A = \underline{\hspace{2cm}}$.
3. The formula for the volume of a rectangular prism is $V = \underline{\hspace{2cm}}$.
4. Which calculation should be used to find the number of gallons of water needed to fill a swimming pool?
 A. area B. surface area C. perimeter D. volume

5. What is the perimeter of the triangle below?



- A. $9x$ B. $8x + 1$ C. $18x + 1$ D. $11x + 1$
6. Roger plans to double the area of the dog run in his backyard. A diagram of the current dog run is drawn below.



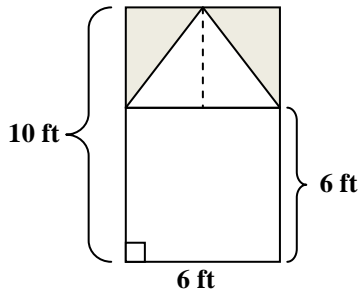
- a) What is the area of the new dog run?
- b) Draw a diagram of the new dog run and label the new dimensions.

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Long-Term Memory Review – Grade 8 Review 2

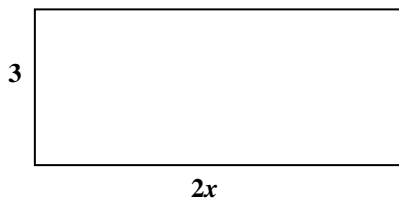
- The formula for the area of a triangle is $A = \underline{\hspace{2cm}}$.
- The formula for the area of a circle is $A = \underline{\hspace{2cm}}$.
- The formula for the volume of a cylinder is $V = \underline{\hspace{2cm}}$.
- United States dollar bills measure 2.61 inches wide and 6.14 inches long. What is the approximate area, in square inches, of a dollar bill?
 A. 2.35 B. 8.75 C. 16.03 D. 41.82

- What is the area of the unshaded portion of the figure shown below, in square feet? (Note: Figure is not drawn to scale.)



- 60 ft^2
- 54 ft^2
- 48 ft^2
- 36 ft^2

- The sides of the rectangle below are $2x$ and 3, and the area is 24. What is the value of x ?

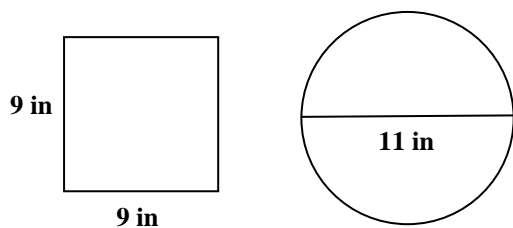


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Review 3

1. The formula for the circumference of a circle is $C = \underline{\hspace{2cm}}$.
2. The formula for the volume of a cylinder is $V = \underline{\hspace{2cm}}$.
3. The formula for the volume of a rectangular prism is $V = \underline{\hspace{2cm}}$.
4. Chris made a candle in the shape of a rectangular prism. He made a second candle that had a height 2 times the height of the first one and kept the other two dimensions the same. Which best compares the volume of the second candle with the volume of the first candle?
 - A. The volume of the second candle is 2 times the volume of the first candle.
 - B. The volume of the second candle is 4 times the volume of the first candle.
 - C. The volume of the second candle is 6 times the volume of the first candle.
 - D. The volume of the second candle is 8 times the volume of the first candle.
5. Hunter has a choice between 2 pizzas: a circular pizza with an 11-inch diameter, and a square pizza with 9-inch sides. Which statement is true?



- A. The pizzas have the same area.
- B. The pizzas have the same perimeter and circumference.
- C. The area of the square pizza is larger than the area of the circular pizza.
- D. The perimeter of the square pizza is larger than the circumference of the circular pizza.

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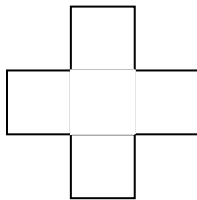
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Review 4

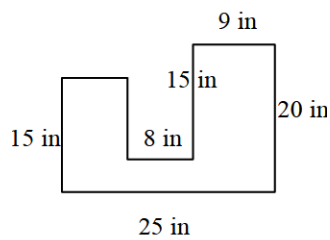
9 in

- Area is _____ dimensional and volume is _____ dimensional.
- The formula used in finding the circumference of a circle is _____.
- The diameter of a bicycle's tire is 26 inches. Approximately how many inches are traveled during one rotation of the tire?
 - 8 inches
 - 82 inches
 - 163 inches
 - 2123 inches

- What is the area of the figure shown below, in square centimeters? Each box in the figure is equilateral, and the figure has a total height of 9 cm.



- What is the area of the figure shown below, in square inches? (Note: Figure is not drawn to scale.)



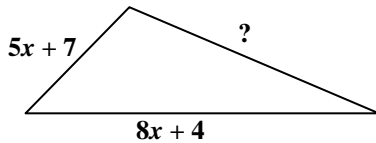
- 500 in^2
- 375 in^2
- 340 in^2
- 110 in^2

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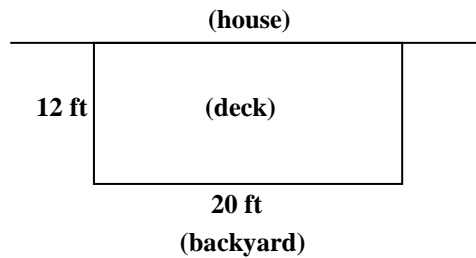
Quiz

1. What is the formula used in finding the volume of a rectangular prism?
2. The perimeter of the triangle below is $23x + 6$.



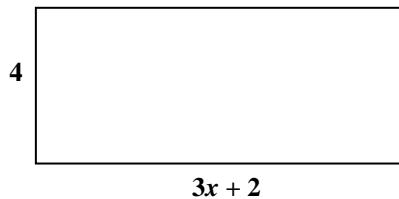
What is the length of the missing side?

- A. $13x + 11$ B. $10x - 5$ C. $10x + 17$ D. $36x + 17$
3. Sam wants to double the area of his rectangular deck on the back of the house by extending it away from the house into the yard. A diagram of the current deck is drawn below.



- a) What will the area be of Sam's new deck?
- b) Draw a diagram of the new deck and label the new dimensions.

7. A rectangle is shown below.



Which expression represents the area of the rectangle?

- A. $12x + 2$ B. $7x + 6$ C. $7x + 8$ D. $12x + 8$

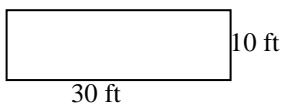
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Answers

Review 1- Answers

- 1) $2l + 2w$
- 2) lw
- 3) lwh
- 4) D
- 5) B



6) a) Area = 300 ft^2

b)

or any other set of factors of 300.

Review 2- Answers

- 1) $\frac{1}{2}bh$
- 2) πr^2
- 3) $\pi r^2 h$
- 4) C
- 5) C
- 6) $x = 4$

Review 3- Answers

- 1) πd or $2\pi r$
- 2) $\pi r^2 h$
- 3) lwh
- 4) A
- 5) D

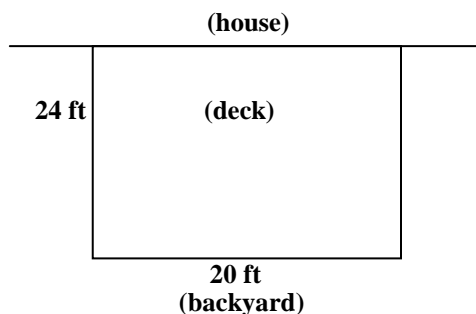
Review 4- Answers

- 1) 2; 3
- 2) $C = \pi d = 2\pi r$
- 3) B
- 4) 45 cm^2
- 5) C

Quiz - Answers

- 1) $V = lwh$
- 2) B
- 3) a) 480 ft^2

b)



4) D